7. (i) $x = 1$

(ii) $-x = -1$

(iii) $-3x = -3$

(iv) $-5ax = -5a$

(v) $\frac{3}{2}xy = \frac{3}{2}y$

(vi) $\frac{ax}{y} = \frac{a}{y}$

10-2021 TODAY H.W EXERCISE 19(c)

2. (i) $4x \times 6x \times 2 = 48x^2$

(ii) $3ab \times 6ax = 18a^2bx$

(iii) $x \times 2x^2 \times 3x^3 = 6x^6$

(iv) $5 \times 5a^3 = 25a^3$

(v) $6 \times 6x^2 \times 6x^2y^2 = 216x^4y^2$

(vi) $-8x \times -3x = 24x^2$

(vii) $-5 \times -3x \times 5x^2 = 115x^3$

(viii) $8 \times -4xy^2 \times 3x^3y^2 = -312x^4y^4$

(ix) $-4x \times 5xy \times 3z = -60x^2yz$

(x) $5x \times 2x^2y \times -7y^3 \times 2x^3y^2 = -140x^6y^6$

3. (i) $3x^2 \times 5x^4 = 15x^6$

(ii) $5a^2 \times 7a^7 = 35a^9$

(iii) $3abc \times 6ac^3 = 18a^2bc^4$

(iv) $a^2b^2 \times 5a^3b^4 = 5a^5b^6$

(v) $2x^2y^3 \times 5x^3y^4 = 10x^5y^7$

7. (i) $x+2$ and $x+10$

$= (x+2) \times (x+10)$

$= x+2 \times x+10$

$= x+x \times 2 = x(x+10) + 2(x+10)$

$= x^2 + 10x + 2x + 20$

$= x^2 + 12x + 20$

(ii) $x+5$ and $x-3$

$= (x+5) \times (x-3)$

$= x(x-3) + 5(x-3)$

$= x^2 - 3x + 5x - 15$

$= x^2 + 2x - 15$

(iii) $x-5$ and $x+3$

$= (x-5) \times (x+3)$

$= x(x+3) - 5(x+3)$

$= x^2 + 3x - 5x - 15$

$= x^2 - 2x - 15$

(iv) $x-5$ and $x-3$

$= (x-5) \times (x-3)$

$= x(x-3) - 5(x-3)$

$= x^2 - 3x - 5x + 15$

$= x^2 - 8x + 15$

(v) $2x+y$ and $x+3y$

$= (2x+y) \times (x+3y)$

$= 2x(x+3y) + y(x+3y)$

$= 2x^2 + 6xy + yx + 3y^2$

$= 2x^2 + 6x^2y^2 + 3y^2$

(vi) $3x-5y$ and $x+6y$

$= (3x-5y) \times (x+6y)$

$= 3x(x+6y) - 5y(x+6y)$

$= 3x^2 + 18xy - 5yx - 30y^2$

$= 3x^2 + 13x^2y^2 - 30y^2$

(vii) $x+9y$ and $x-5y$

$= (x+9y) \times (x-5y)$

$= x(x-5y) + 9y(x-5y)$

$= x^2 - 5yx + 9yx - 45y^2$

$= x^2 + 4yx - 45y^2$

(viii) $2x+5y$ and $2x+5y$

$= (2x+5y) \times (2x+5y)$

$= 2x(2x+5y) + 5y(2x+5y)$

$= 4x^2 + 10xy + 10xy + 25y$

$= 4x^2 + 20xy + 25y$

EXERCISE 19(D)

2. (i) $2x^5 \div x^2$

$= 2x^3$

(ii) $6a^8 \div 3a^3 = 2a^5$

(iii) $20xy \div -5xy = -4$

~~(iv) $-28a^2b^2c^2 \div 6ab = -14a^2b^2c^2 \div 3ab =$~~

(iv) $-24a^2b^2c^2 \div 6ab$

$= -4ab - 4abc^2$

(v) $-5x^2y \div xy^2 = -5xy$

(vi) $40p^3q^4r^5 \div 10p^3q = 4q^3r^5$

(vii) $-64x^4y^3z \div 4x^3y^2z = -16xy$

(viii) $35xy^5 \div 7x^2y^4 = 5xy$

3. (i) $\frac{-3m}{4}$ by $2m$

$$\frac{-3m}{4} \div 2m = \frac{-3m}{4} \times \frac{1}{2m} = \frac{-3}{8}$$

(ii) $-15p^6q^8 \div -5p^6q^7$

$-5 \times p \times p \times p \times p \times p \times p \times q \times q \times q \times q \times q \times q \times q \times q \times q$

$$\frac{-15p^6q^8}{-5p^6q^7} = \frac{-15}{-5}q^{8-7} = 3q$$

(iii) $-21m^5n^7 \div 14m^2n^2$

$$\frac{-21m^5n^7}{14m^2n^2} = \frac{-21}{14}m^{5-2}n^{7-2} = \frac{-3m^3n^5}{2}$$

(iv) $36a^4x^5y^6 \div 4x^2a^3y^2$

$$\frac{36a^4x^5y^6}{4x^2a^3y^2} = \frac{36}{4}a^{4-3}x^{5-2}y^{6-2} = 9ax^3y^4$$

(v) $20x^3a^6 \div 5xy$

$$\frac{20x^3a^6}{5xy} = \frac{20x^{3-1}a^6}{5y} = \frac{4x^2a^6}{y}$$

(vi) $\frac{28a^2b^3}{c^2} \div 4abc$

$$\frac{28a^2b^3}{c^2} \times \frac{1}{4abc} = \frac{28ab^2}{4c^3} = \frac{7ab^2}{c^3}$$

(vii) $\frac{2a^2}{9b^2} \div \frac{3b}{2a}$

$\frac{2a^2}{9b^2} \times \frac{2a}{3b} = \frac{4a^3}{27b^3}$

(viii) $\frac{-5.5x^2}{y} \div \frac{11x}{y}$

$\frac{-5.5x^2}{y} \times \frac{y}{11x} = \frac{-1x}{2}$

(ix) $\frac{64x^2y^2}{z^2} \div \frac{8xy}{z}$

$\frac{64x^2y^2}{z^2} \times \frac{z}{8xy} = \frac{8xy}{z}$